

NINDS CDE Notice of Copyright
Scale for Outcomes of Parkinson's Disease-Sleep (SCOPA-SLEEP)

Availability:	The instrument is freely available here: http://www.scopa-propark.eu/index.php?page=1&navRight=3&doc=3&group=Yes&taal=eng&language=eng&show=yes
Classification :	Supplemental
Short Description of Instrument:	<p>Summary/Overview of Instrument: The SCOPA-S (Scale for Outcomes of Parkinson's disease-Sleep) is a self-rated questionnaire developed originally for research in Parkinson's disease that addresses both nighttime sleep problems and daytime sleepiness. Its questions focus on experiences over the past month. It has two questions on the use of sleeping medications, one question on an overall global perception of sleep at night, 6 questions on sleep patterns at night and 6 questions on sleep in the day.</p> <p>Construct measured: Two constructs are measured by its two subscales: 1.) Nighttime sleep problems (NS), and 2.) Daytime sleepiness (DS)</p> <p>Generic vs. disease specific: Developed for use in Parkinson's disease research, but its questions do not refer at all to Parkinson's disease with the original intent for it to be potentially useful across other conditions. It has been used in one study of Huntington's disease patients and controls.</p> <p>Intended use of instrument/purpose of tool: For research or clinical purposes—it could be used as a screening instrument or for rating severity of nighttime sleep disturbances or daytime sleepiness.</p> <p>Means of administration: Paper and Pencil</p> <p>Location of administration: Clinic or home</p> <p>Intended respondent: Patient</p> <p># of items: 14 (2 questions on use of sleeping tablets, 1 global perception of sleep at night question, and the 11 items of the two subscales)</p> <p># of subscales and names of sub-scales: 2 – Nighttime sleep problems (NS:5 items; score range:0-15), Daytime sleepiness (DS:6 items; score range 0-18)</p> <p>Strengths: Easy to administer and to score. The two subscales have been shown in other populations to each measure one factor. The questions are clear and it is quite comprehensive. One small study in HD (Aziz et al 2010) found it more reliable in HD patients than the Pittsburgh Sleep Quality Index or the Epworth Sleepiness Scale.</p> <p>Weaknesses: Limited use to date in the sleep literature of other populations compared to other measures; does not directly address changes in circadian rhythms (sleep time shifting to the day and awake all night) that clinically is often observed in HD patients. Aziz et al., 2010 suggested that one item in the DS subscale "falling asleep while talking" may not be suitable for HD populations as it was not endorsed by any of their subjects.</p>

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	<p>Administration Time: Short (less than 5 minutes)</p> <p>Translations available: A Spanish translation was studied in a population of Parkinson's disease patients. Unclear if other translations are available.</p>
Scoring:	<p>Scoring: With the exception of the one question on use of sleep medications in which the names of medications are listed with doses and frequency of use, all 13 other items are Likert-type, with 4 to seven options such as "not at all," "a little," "quite a bit," and "a lot." All 11 questions from the two subscales, NS and DS have 4 options which are scored 0-3. Subscale totals are easily calculated though summing the totals of all items in that subscale.</p> <p>Standardization of scores to a reference population (z scores, T scores, etc): Insufficient research data to convert subscale scores to standardized scores, either with reference to normal population or manifest HD patients, presymptomatic gene carriers or controls.</p> <p>If scores have been standardized to a reference population, indicate frame of reference for scoring (general population, HD subjects, other disease groups, etc). Not available.</p>
Psychometric Properties:	<p>Reliability: Test-retest or intra-interview (within rater) reliability (as applicable): not assessed in HD populations, but good test-retest reliability in Parkinson's disease population (intraclass correlation coefficients for NS 0.94, and DS 0.89 (Marinus et al, 2003) Inter-interview (between-rater) reliability (as applicable): Not assessed in HD populations Internal consistency: Cronbach's alpha for SCOPA-NS 0.89 and for SCOPA-DS 0.85 in HD sample (Aziz et al.2010); in PD sample these values were 0.88 and 0.91.</p> <p>Validity: Content validity: Not reported in reviewed references Construct validity: found to correlate highly with other scales that measure similar constructs: in HD subjects the NS subscale correlated highly with the Pittsburgh Sleep Quality Index (r=0.77) in a small HD sample (Aziz et al., 2010) and the DS subscale correlated</p>

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	<p>highly with a measure of daytime sleepiness, the Epworth Sleepiness Scale ($r=0.75$).</p> <p>Diagnostic Sensitivity and Specificity, if applicable (in general population, HD population- premanifest/ manifest, other disease groups): Not appropriate for diagnosis of sleep disorders; rather, it is useful for screening and for measurement of the constructs of nighttime sleep problems and daytime sleepiness</p>
References:	<p>Key Reference: Marinus J, Visser M, van Hilten JJ, Lammers GJ, Stieggelbout AM. Assessment of Sleep and Sleepiness in Parkinson Disease. <i>Sleep</i> 2003; 26:1049-54.</p> <p>Other References: Aziz NA, Anguelova GV, Marinus J, Lammers GJ, Roos RAC. Sleep and Circadian rhythm alterations correlate with depression and cognitive impairment in Huntington's disease. <i>Parkinsonism and Related Disorders</i> 2010;16:345-50.</p> <p>Hogl B, Arnulf I, Comella C, et al. Scales to Assess Sleep Impairment in Parkinson's Disease: Critique and Recommendations. <i>Movement Disorders</i> 2010;25:2704-16.</p>